



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,860	12/10/2003	Torsten Berger	SNS-017	8039

51414 7590 09/18/2006

GOODWIN PROCTER LLP
PATENT ADMINISTRATOR
EXCHANGE PLACE
BOSTON, MA 02109-2881

EXAMINER

CASCHERA, ANTONIO A

ART UNIT	PAPER NUMBER
----------	--------------

2628

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,860

Applicant(s)

BERGER, TORSTEN

Examiner

Antonio A. Caschera

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

.DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-11, 30-40 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Staiger, Phillip. (“Tutorial – Amapi 4.1.5 Material Editor” Revised January 1, 2001. © 2000-2001 TGS, Inc. <http://www.tgs.com>. Accessed on 09/08/2006 via <http://www.thebest3d.com/amapi/tutorials/materialeditor/>).

In reference to claims 1, 10, 30 and 33, Staiger discloses a tutorial for editing a soda can’s geometry including applying various materials as 2D and 3D textures using the GUI of a program entitled Amapi (see page 1, before “Getting Started” and GUI of Figure on page 2). Staiger explicitly discloses applying a “label” to the soda can, the “label” made of from a 2D image (see page 11). Staiger discloses adjusting the 2D image, seen as functionally equivalent to the texture of Applicant’s claims, utilizing a 3D GUI element (see “*” marked Figures of page 12, specifically the adjusting element comprising black squares or “hotspots”). Note, the Office interprets this element to be 3D since it is shown as being drawn in a 3D space (referring to the 3D soda can) and also because the element itself is displayed in the user interface as comprising three dimensions (see for example, the sphere and cylindrical shaped elements of the “*” marked Figures of page 12 and how they are drawn to with a x, y and depth attributes). Staiger

specifically states the “black squares” of the element to be “hotspots” allowing the user to select and modify these “hotspots” to re-orient (rotate), scale and translate (move) the mapped image or texture, therefore allowing the user to select the desired region of the soda can where the texture is mapped (see underlined portion of page 12 and “*” marked Figures of page 12). Further, in reference to claims 10 and 33, the Office interprets the GUI element of Staiger functionally equivalent to the “three-dimensional haptic graphical user interface element” of Applicant’s claims since a user utilizing a mouse as input control for performing the material editing methods as described by Staiger inherently provides feedback via a display monitor of a computer system. Further, the “hotspots” of the element of Staiger provide a “haptic feedback” to the user since they allow the texture to be manipulated on the screen, notifying the user when the desired manipulation is accomplished. Also, in reference to claim 30, the Office interprets the material editing program Amapi, as disclosed in Staiger, to inherently disclose the apparatus performing the above disclosed methods since this computer program must inherently be executed by some type of computer or similar processing device, comprising a processor for executing memory medium stored instructions to perform the above disclosed methods.

In reference to claims 2-4, 11 and 34-38, Staiger discloses all of the claim limitations as applied to claims 1 and 10 above. Staiger specifically states the “black squares” of the elements to be “hotspots” allowing the user to select and modify these “hotspots” to re-orient (rotate), scale and translate (move) the mapped image or texture, therefore allowing the user to select the desired region of the soda can where the texture is mapped (see underlined portion of page 12 and “*” marked Figures of page 12).

In reference to claim 5, Staiger discloses all of the claim limitations as applied to claim 1 above. Staiger explicitly discloses applying a “label” to the soda can, the “label” made from a 2D image (see page 11).

In reference to claim 6, Staiger discloses all of the claim limitations as applied to claim 1 above. Staiger explicitly discloses applying a “label” to the soda can, the “label” made from a 2D image (see page 11). Further, Staiger allows the user to set a tiling count for the mapped texture (see page 13).

In reference to claim 7, Staiger discloses all of the claim limitations as applied to claim 1 above. Staiger explicitly discloses applying a “label” to the soda can, the “label” made from a 2D image (see page 11). Further, Staiger allows the fine tune adjustment of the texture to create a bump or raised affect (see page 13).

In reference to claims 8 and 9, Staiger discloses all of the claim limitations as applied to claim 7 above. Staiger explicitly discloses applying a “label” to the soda can, the “label” made from a 2D image (see page 11). Further, Staiger allows the fine tune adjustment of the texture to create a bump or raised affect (see page 13). Note, the Office interprets the GUI element of Staiger to perform functionally equivalent to adjusting height/depth of label since Staiger discloses adding another layer, utilizing the “hotspot” mapping element for a bump affect (see page 13).

In reference to claims 31 and 32, Staiger discloses all of the claim limitations as applied to claim 30 above. Staiger specifically states the “black squares” of the element to be “hotspots” allowing the user to select and modify these “hotspots” to re-orient (rotate), scale and translate (move) the mapped image or texture, therefore allowing the user to select the desired region of

the soda can where the texture is mapped (see underlined portion of page 12 and “*” marked Figures of page 12). Note, the Office interprets the GUI software/program Amapi, as disclosed by Staiger, to inherently provide some sort of selection and positioning component, notifying the program of a selection of a “hotspot,” based upon the use of a mouse (and cursor) by the user, and moving the cursor to the “hotspot” in accordance with the user’s movement of the mouse (see underlined portion of page 12).

In reference to claims 39, 40 and 42, Staiger discloses all of the claim limitations as applied to claims 1, 10 and 30 respectively above. As seen in the Figures of page 12 of Staiger, it is interpreted by the Office that the GUI element used to rotate, scale and translate mapped texture inherently comprises of an x, y and z axis since the element is drawn in a 3D space. Further the Office notes, that claims 39, 40 and 42 do not explicitly disclose the graphical element as displaying an x, y and z axis and solely recite, “...wherein the graphical user interface element comprises an X-axis, a Y-axis and a Z-axis,” (see claims 39, 40 and 42).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 12-16, 18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staiger, Phillip. (“Tutorial – Amapi 4.1.5 Material Editor” Revised January 1, 2001. © 2000-2001 TGS, Inc. <http://www.tgs.com>. Accessed on 09/08/2006 via

<http://www.thebest3d.com/amapi/tutorials/materialeditor/>) in view of Brown (U.S. Patent 5,461,709).

In reference to claim 12, Staiger discloses all of the claim limitations as applied to claim 10 above. Staiger does not explicitly disclose the haptic feedback comprising a gravity well associated with an active location however Brown does. Brown discloses a system for supplying input data establishing the location of data points in a model space for a 3D CAD design application (see column 1, lines 5-7 and column 2, lines 5-8). Brown discloses the ability to move the cursor close to an indexed point whereby a “sweet spot” of a few pixels wide is established near this indexed point and if the cursor is moved within this, “sweet spot” the cursor is locked into precisely a horizontal or vertical position with the indexed point (see column 9, lines 40-46). Note, the Office interprets the “sweet spot” of Brown functionally equivalent to the “gravity well” of Applicant’s claim. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the data point location techniques of Brown with the material editing techniques of Staiger in order to provide an easier and more user-friendly interface, employing a sophisticated drawing aid based on the interpretation of the user controlled cursor, supplying extensive feedback control to the user (see column 3, lines 22-34 of Brown).

In reference to claim 13, Staiger discloses all of the claim limitations as applied to claim 10 above. Staiger does not explicitly disclose the haptic feedback comprising a haptic constraint however Brown does. Brown discloses a system for supplying input data establishing the location of data points in a model space for a 3D CAD design application (see column 1, lines 5-7 and column 2, lines 5-8). Brown discloses the ability to move the cursor close to an indexed

Art Unit: 2628

point whereby a “sweet spot” of a few pixels wide is established near this indexed point and if the cursor is moved within this, “sweet spot” the cursor is locked into precisely a horizontal or vertical position with the indexed point (see column 9, lines 40-46). Note, the Office interprets the “sweet spot” of Brown functionally equivalent to the “gravity well” of Applicant’s claim. Brown further discloses the user to place a data point at the current position within the “sweet spot” and lock the point thereby allowing the user to snap to another item while allowing the above constraint, keeping the locked point aligned, to apply (see column 9, lines 59-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the data point location techniques of Brown with the material editing techniques of Staiger in order to provide an easier and more user-friendly interface, employing a sophisticated drawing aid based on the interpretation of the user controlled cursor supplying extensive feedback control to the user (see column 3, lines 22-34 of Brown).

In reference to claim 14, Staiger and Brown disclose all of the claim limitations as applied to claim 13 above in addition, Brown discloses constraining a “snap to” cursor movement to a current plane (see column 15, lines 40-46) which the Office interprets as inherently disclosing constraining cursor movement to the surface of an object as a specific plane makes up the surface of an object (see column 15, lines 26-34 of Brown).

In reference to claim 15, Staiger and Brown disclose all of the claim limitations as applied to claim 13 above in addition, Brown discloses constraining a “snap to” cursor movement to a current plane (see column 15, lines 40-46) which the Office interprets as inherently disclosing constraining cursor movement to a user defined region (see column 15, lines 26-34 of Brown).

In reference to claim 16, Staiger and Brown disclose all of the claim limitations as applied to claim 13 above in addition, Brown discloses the ability to move the cursor close to an indexed point whereby a “sweet spot” of a few pixels wide is established near this indexed point and if the cursor is moved within this, “sweet spot” the cursor is locked into precisely a horizontal or vertical position with the indexed point (see column 9, lines 40-46). Note, this locked to a horizontal or vertical position of Brown is interpreted as equivalent to being constraint to an axis of Applicant’s claim (see Figure 7 of Brown).

In reference to claim 18, Staiger and Brown disclose all of the claim limitations as applied to claim 13 above. Although Brown discloses constraining the cursor to an axis via a “sweet spot” and locking technique (see claim 16 above), neither Staiger nor Brown explicitly disclose constraining the cursor to a loop. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to constrain the cursor to any geometric figure including a circular shape or loop. Applicant has not disclosed that constraining the cursor to a loop provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant’s invention to perform equally well with the axis constraint of Brown because the exact restraints put on the movement of the cursor solely magnifies the amount of feedback to the user provided by the system and hence the level of necessary feedback would be chosen as preferred and best suited to the application at hand. Therefore, it would have been obvious to one of ordinary skill in this art to modify the combination of Staiger and Brown to obtain the invention as specified in claim 18.

In reference to claims 20-22, Staiger and Brown disclose all of the claim limitations as applied to claim 13 above. Staiger discloses adjusting the 2D image, seen as functionally

Art Unit: 2628

equivalent to the texture of Applicant's claims, utilizing a 3D GUI element (see "*" marked Figures of page 12 and underlined portion of page 12, specifically the adjusting element comprising black squares or "hotspots" being activated by the user moving a cursor over certain areas of the 3D soda can). Brown further discloses the user to place a data point at the current position within the "sweet spot" and lock the point thereby allowing the user to snap to another item while allowing the above constraint, keeping the locked point aligned, to apply (see column 9, lines 59-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the data point location techniques of Brown with material editing techniques of Staiger in order to provide an easier and more user-friendly interface, employing a sophisticated drawing aid based on the interpretation of the user controlled cursor supplying extensive feedback control to the user (see column 3, lines 22-34 of Brown). Further note, it would have been obvious to one of ordinary skill in the art to modify the combination of Staiger and Brown in order to enable a haptic constraint ("locking" and "sweet spot" functions of Brown) when a certain texture adjustment method is selected (translation, rotation, scaling techniques of Staiger) in order to automatically provide the haptic constraint without making the user manually turn on/off the constraint.

3. Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staiger, Phillip. ("Tutorial – Amapi 4.1.5 Material Editor" Revised January 1, 2001. © 2000-2001 TGS, Inc. <http://www.tgs.com>. Accessed on 09/08/2006 via <http://www.thebest3d.com/amapi/tutorials/materialeditor/>), Brown (U.S. Patent 5,461,709) and further in view of Shahoian et al. (U.S. Patent 6,822,635 B2).

In reference to claims 17 and 19, Staiger and Brown disclose all of the claim limitations as applied to claims 16 and 18. Neither Staiger nor Brown explicitly disclose at least haptic detent active on an axis or loop of a cursor however Shahoian et al. does. Shahoian et al. discloses a haptic feedback touch control used to provide input to a computer system whereby a haptic effect, or detent is felt by the user when he/she uses the touch control with fingers (see columns 1-2, lines 66-1 and column 23, lines 51-58). Shahoian et al. further discloses the touch control to provide such detents in X and Y directions or axes (see column 23, lines 23-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the haptic detent techniques of Shahoian et al. with the data point location techniques of Brown and the material editing techniques of Staiger in order to provide the user with a better sense of reality while controlling the computer system by translating the moving surface to a transition point between buttons and icons of the computer and user control device (see column 23, lines 56-58 of Shahoian et al.).

4. Claims 23-28 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staiger, Phillip. ("Tutorial – Amapi 4.1.5 Material Editor" Revised January 1, 2001. © 2000-2001 TGS, Inc. <http://www.tgs.com>. Accessed on 09/08/2006 via <http://www.thebest3d.com/amapi/tutorials/materialeditor/>) in view of Yanof et al. (U.S. Patent 5,371,778).

In reference to claim 23, Staiger discloses a tutorial for editing a soda can's geometry including applying various materials as 2D and 3D textures using the GUI of a program entitled Amapi (see page 1, before "Getting Started" and GUI of Figure on page 2). Staiger explicitly discloses applying a "label" to the soda can, the "label" made of from a 2D image (see page 11).

Art Unit: 2628

Staiger discloses adjusting the 2D image, seen as functionally equivalent to the texture of Applicant's claim, utilizing a 3D GUI element (see "*" marked Figures of page 12, specifically the adjusting element comprising black squares or "hotspots"). Note, the Office interprets this element to be 3D since it is shown as being drawn in a 3D space (referring to the 3D soda can) and also because the element itself is displayed in the user interface as comprising three dimensions (see for example, the sphere and cylindrical shaped elements of the "*" marked Figures of page 12 and how they are drawn to with a x, y and depth attributes). Staiger specifically states the "black squares" of the element to be "hotspots" allowing the user to select and modify these "hotspots" to re-orient (rotate), scale and translate (move) the mapped image or texture, therefore allowing the user to select the desired region of the soda can where the texture is mapped (see underlined portion of page 12 and "*" marked Figures of page 12). Staiger does not explicitly disclose modifying a transformation matrix used in mapping points on the surface of the object to texture however Yanof et al. does. Yanof et al. discloses a display and adjustment of 3D projections using a transformation matrix whereby if a change of viewing angle of the projection is made, the transformation matrix is modified (see column 2, lines 39-55 and column 7, lines 1-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the transformation techniques of Yanof et al. with the material editing techniques of Staiger in order to provide a display system wherein a real-time adjustment of different views of a 3D object is performed (see column 2, lines 29-36 of Yanof et al.).

In reference to claim 24, Staiger and Yanof et al. disclose all of the claim limitations as applied to claim 23 above. Staiger discloses the soda can rendered after having mapped the “label” texture thereto (see page 14).

In reference to claim 25, Staiger and Yanof et al. disclose all of the claim limitations as applied to claim 24 above. Staiger discloses the soda can rendered after having mapped the “label” texture thereto (see page 14). Yanof et al. also discloses displaying an image including 4 additional view ports which “keep” depth values or k values consistent by showing distortions in 3D object faces (see column 4, lines 19-45 and Figure 2).

In reference to claim 26, Staiger and Yanof et al. disclose all of the claim limitations as applied to claim 25 above in addition, Yanof et al. discloses generating image volume data in the form of voxels (see column 3, lines 62-67).

In reference to claim 27, Staiger and Yanof et al. disclose all of the claim limitations as applied to claim 25 above in addition, Yanof et al. discloses an editing means enabling an operator to make an effective removal of unwanted voxels from the display region (see column 5, lines 17-30). Note, the Office interprets Yanof et al. to inherently disclose editing these voxels based upon an activation of a user signal as Yanof et al. further discloses using a cursor control means to move a cursor on the display (see column 2, lines 54-55).

In reference to claim 28, Staiger and Yanof et al. disclose all of the claim limitations as applied to claim 27 above. Note, the Office interprets Yanof et al. to inherently disclose editing these voxels based upon an activation of a user signal as Yanof et al. further discloses using a cursor control means to move a cursor on the display (see column 2, lines 54-55) and a cursor

positioning means such as a mouse or trackball (see column 8, lines 35-38) which comprise of buttons to click and release.

In reference to claim 41, Staiger and Yanof et al. disclose all of the claim limitations as applied to claim 23 above. As seen in the Figures of page 12 of Staiger, it is interpreted by the Office that the GUI element used to rotate, scale and translate mapped texture inherently comprises of an x, y and z axis since the element is drawn in a 3D space. Further the Office notes, that claim 41 does not explicitly disclose the graphical element as displaying an x, y and z axis and solely recite, "...wherein the graphical user interface element comprises an X-axis, a Y-axis and a Z-axis," (see claim 41).

5. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Staiger, Phillip. ("Tutorial – Amapi 4.1.5 Material Editor" Revised January 1, 2001. © 2000-2001 TGS, Inc. <http://www.tgs.com>. Accessed on 09/08/2006 via <http://www.thebest3d.com/amapi/tutorials/materialeditor/>), Yanof et al. (U.S. Patent 5,371,778) and further in view of Brown (U.S. Patent 5,461,709).

In reference to claim 29, Staiger and Yanof et al. disclose all of the claim limitations as applied to claim 23 above. Neither Staiger nor Yanof et al. explicitly disclose arming or disarming a haptic constraint however Brown does. Brown discloses a system for supplying input data establishing the location of data points in a model space for a 3D CAD design application (see column 1, lines 5-7 and column 2, lines 5-8). Brown discloses the ability to move the cursor close to an indexed point whereby a "sweet spot" of a few pixels wide is established near this indexed point and if the cursor is moved within this, "sweet spot" the cursor is locked into precisely a horizontal or vertical position with the indexed point (see column 9,

lines 40-46). Note, the Office interprets the “sweet spot” of Brown functionally equivalent to the “gravity well” of Applicant’s claim. Brown further discloses the user to place a data point at the current position within the “sweet spot” and lock the point thereby allowing the user to snap to another item while allowing the above constraint, keeping the locked point aligned, to apply (see column 9, lines 59-65). Brown discloses locking and unlocking the point using a lock button (see column 9, line 65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the data point location techniques of Brown with the transformation techniques of Yanof et al. and material editing techniques of Staiger in order to provide an easier and more user-friendly interface, employing a sophisticated drawing aid based on the interpretation of the user controlled cursor supplying extensive feedback control to the user (see column 3, lines 22-34 of Brown).

Response to Arguments

6. The addition of claims 39-42 is noted.
7. Applicant's arguments with respect to claim 07/06/06 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781. The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:00 AM and 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung, can be reached at (571) 272-7794.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

571-273-8300 (Central Fax)

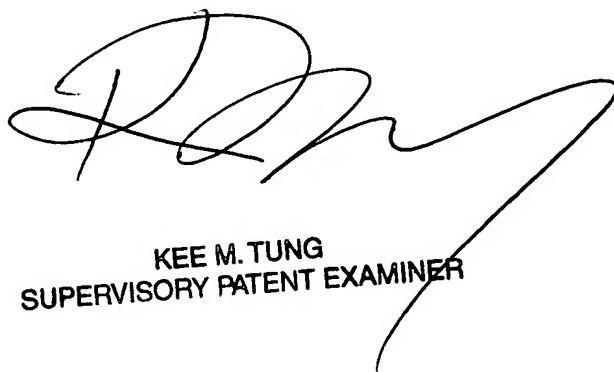
Art Unit: 2628

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (571) 272-2600.

aac

AAC
9/9/06

PATENT EXAMINER



KEE M. TUNG
SUPERVISORY PATENT EXAMINER